



*Published to advance the Science of cold-blooded vertebrates*

A NEW RECORD FOR THE LUMP-  
SUCKER (*EUMICROTREMUS ORBIS*  
GUNTHER).

On his visit to Alaska during last year, Dr. Hugh M. Smith, Commissioner, Bureau of Fisheries, secured three specimens of *Eumicrotremus orbis* which, since data concerning the species is so scant, it seems well to record. One of the three specimens is about as large as any of which the size has been recorded, being nearly three inches (78 mm.) total length from tip of upper jaw to tip of caudal. The other two specimens were respectively about 2.04 (52 mm.) and 2.28 (58 mm.) inches.

The single specimen which served Gunther as the type of the species, is stated to be 22 lines (about 1.8 inches) in length. The specimen was taken at "Esquimault Harbour (west coast of North America)," Vancouver.

Other records are: One specimen one inch long, taken at mouth of Hood Canal, July 1, 1903; one, one inch long was dredged at Albatross station, 1.3 miles off Admiralty Head on bottom of rocks and shells; another, 1.5 inches long, was dredged at Albatross station 4291, 8.5 miles off Cape Uyak, Shelikof Strait, on blue mud and sand bottom; one, 3.85 inches long was found in the stomach of a cod caught in Bering Sea in 1902, at a depth of 500 feet; three specimens, length not stated, were removed from the stomach of an *Alepidosaurus ferox*, October, 1880,

at Imliuk, Unalaska; another specimen was collected by Dr. W. H. Dall at St. Paul Island, August, 1868, and still another by Drs. Dall and Bean at Plover Bay, Siberia, August 3, 1880. Gilbert records the species from Samak Islands and in Bristol Bay, at Albatross stations 3213, 3258 and 3274. The reserve series of the Bureau of Fisheries contains one specimen, 2.44 inches (62 mm.) long, No. 582, from Albatross station 3561, Bering Sea, in about 43 fathoms.

The three specimens obtained by Dr. Smith were taken in a shrimp-trawl at Thomas Bay, Alaska, in about 20 fathoms, August 3, 1921.

The following notes were taken on the largest of Dr. Smith's specimens:—

Length of body without tail, 60.5 mm.; length of head, 23.5 mm.; length of gape, 7.0 mm.; length of orbit, 9.0 mm.; width of interorbital, 14.0 mm.; depth of body, 33.0 mm.; length of pectoral, 15.0 mm.; length of base of dorsal, 11.0 mm.; height of dorsal (at 4th ray), 11.0 mm.; length of base of anal, 12.0 mm.; distance between dorsals, 11.0 mm.; distance from dorsal to caudal, 17.0 mm.; distance from anal to caudal, 17.0 mm.; D. VI-9; A.  $7\frac{1}{2}$ .

WILLIAM C. KENDALL,  
*U. S. Bureau of Fisheries.*

#### NOTES ON THE SUMMER FOOD OF *CHILOMYCTERUS SCHOEPFI* (WALBAUM)

At Atlantic City, N. J., in the summer of 1920, fifty-eight specimens of *Chilomycterus schoepfi* (Walbaum) were examined with the purpose of determining on what they had been feeding. All specimens were taken in the pound nets operated from Young's Million Dollar Pier and opened immediately. A few were taken each day from July

31 to August 25. They varied in length from 17 to 24 cm. with a modal length of 19 cm., were all mature, and in their spawning season. No variation of food in correlation to sex or condition could be established. The accompanying data indicates the material found and the number of stomachs found containing each particular food:

Material, Small crabs; no. of stomachs, 17. Shrimps; 1. Unidentified crustaceans; 1. Mussels; 5. Unidentified; 1. Empty; 32.

The unidentified material consisted largely of matter reduced to a blue or yellowish paste presumably by the process of digestion.

C. M. BREDER, JR.,  
U. S. Bureau of Fisheries.

### *CORYTHOICHTHYS ENSENADAE* FROM BERMUDA.

Two specimens of an unrecognized pipefish were collected at Hungry Bay, November 5, 1906, which appear to be *Corythoichthys ensenadae* (Silvester). May and June, 1915. Porto Rico. Vol. XII, Marine Biol. Carnegie Inst. p. 21, Pl. 2.

The following is a detailed description of them. Head 4 in trunk,  $10\frac{1}{2}$  in total. Depth equal to the greatest width. Snout just over 3 in the head. Base of dorsal is  $1\frac{1}{4}$  in head. Rings 17+34. Dorsal has 19 rays on 0+6 rings. Egg pouch is  $3\frac{2}{3}$  in total. Color brown, upper part of snout and interorbital yellow, interorbital with a small brown dot in its center. A streak of yellow beginning at the posterior border of the orbit and running back over the nape to the other eye; base of pectoral with a yellow dot; 7 bars crossing the back to beginning of dorsal, its first ray in a brown dot which is in the 7th bar; 2 bars behind this running through the dorsal; then 5 bars; then 2 dots followed by

markings which look like KIX. There are 7 more behind the X. Belly has 15 rows of dots, having 3 dots in each row. Behind the pouch the markings are more or less met by those of the back. There are 25 bars in all on the male and 22 on the female.

L. L. MOWBRAY,  
*Miami Aquarium, Florida.*

## REVIEW OF BLANCHARD'S REVISION OF THE KING SNAKES

The American King Snakes of the genus *Lampropeltis* have always been a sharp thorn in the side of every herpetologist who has dealt with them. Five North American genera of snakes have particularly needed revision. *Thamnophis* has been reduced to order by Ruthven. Now, Blanchard of the University of Michigan, has helped us similarly with an extremely useful revision of *Lampropeltis*. *Elaphe*, *Natrix*, and *Pituophis* still await biographers, although the genus last named offers no such teasing problem as the others.

The sort of revision before me now is preëminently the American form of contribution to the literature of systematic zoölogy and one in which American workers may well take pride. Comparisons are never very well worth while and Boulenger's handling of the *Lacertidae* and of some of the sections of the genus *Rana* is masterly in the extreme. Nevertheless, Blanchard's paper, although almost the first contribution to science with which he has favored us, still stands forth as certainly as useful in its arrangement as any revision which has hereto appeared. One particular feature impressed me most happily and that is the recognition of possibly doubtful forms under distinct headings where they can not be proved definitely to be synonyms of some other type. In the past, the "lumping" of doubtful forms has brought more misery into the lives of

workers on reptiles than any other single custom. The number of new types here described is small. The last word, however, has probably not been said and Blanchard shows us or postulates where novelties may still be expected to turn up.

Practically all of the material in this country has been available for his study. The result is the recognition of three principal types or superspecies with two other isolated forms of doubtful affinity. Thus, *getulus* stands broken into eleven forms, species and subspecies. *Calligaster* appears with three related forms all given full specific rank and *triangulum* with thirteen species and subspecies within its limits. Garman's *mexicana* and Brown's *alterna* do not seem to fit into the system and may be considered as offshoots whose annectant relatives have disappeared in the past.

It is hardly worth while to attempt to summarize Blanchard's conclusions. He has done this quite satisfactorily himself, while comments or criticisms which might be offered would probably be equally futile. It is certain that after the obvious care and industry with which Mr. Blanchard has prepared his review, taken in connection with the fact that he has seen more material than any other one worker, that, therefore, he now knows more about King Snakes than anyone else.

It seems, however, that he might have localized the area of origin perhaps a little more closely than when he says "in all probability each of these groups [meaning the three great superspecies] originated in some portion of the region between Texas and Nicaragua." He then goes on to present ten criteria for determination of centers of dispersal, some worthy of high consideration, others of certainly very little value. All, however, point to "the Southwest" as being the area where original differentiation occurred. We would have gone a bit further and would have suggested the highlands of Central Mex-

ico with their northward extensions as having been probably the region where most active development of these and other types as well took place. We would, also, have suggested reducing in size many of the full page diagrams for comparison of numbers of ventral plates and cross-bands for, while no intention has ever been implied to pad the excellently edited publications of the U. S. National Museum, nevertheless, American systematic work has captious critics abroad who might easily misinterpret diagrams so expansive.

One of the most interesting features brought out and one worthy of special examination by those other than professional students of herpetology, is the study of the variation in the dorsal rows of scales where it is shown that the facts insisted upon by Ruthven in his "Revision of *Thamnophis*" are largely substantiated in this study and the intercalation of additional dorsal rows and their loss is subject to perfectly definite rule. Indeed, one calls to mind subconsciously Jackson's admirable studies showing how exact is the mode whereby added rows of plates appear with mathematical precision in the immobile tests of Echini whereas on the snakes' excessively flexible bodies scale rows are added with similar precision. The fact, however, that the number of rows of scales is correlated with the size of the body is at sharp variance with the condition in the Echini where the number of rows of plates is an evidence of the evolutionary development of the type and bears no relation to size.

I may be hoped that these remarks will serve their purpose in simply calling to the attention of the now very considerable number of persons who are students of American reptiles, that a new tool of great usefulness may be put into their chests.

T. BARBOUR,  
Cambridge, Mass.

## SECOND REPORT ON LIZARDS SECURED BY THE WHITNEY SOUTH SEA EXPEDITION

In a previous number of *Copeia* (1921, No. 101, pp. 90-92), I recorded a collection of lizards made in Polynesia by Mr. R. H. Beck in the course of his work for the Whitney South Sea Expedition. The arrival of a second shipment of alcoholic material, from Mr. Beck, containing two-hundred-and-twenty-four specimens of lizards, enables me to add a second list of species and localities.

Dr. Thomas Barbour has kindly called my attention to the blunder in my previous list, by which I associated the Christmas Island in the Indian Ocean, south of Java, which forms the subject of the monograph of Andrews, with the Christmas Island in Polynesia, from which the Whitney Expedition material comes. It is not surprising, therefore, that the lizards secured by Mr. Beck showed no relations with those described in the monograph.

Additional specimens of *Peropus mutilatus* from Remitara Island and Christmas Island, of *Leiopisma noctua* from Remitara Island, of *Cryptoblepharus poecilopleurus* from Christmas Island, and *Lepidodactylus lugubris* and *Emoia cyanurum* from Tahiti, supplement the previous collections from these islands.

The remaining specimens are from Morea Island, Society Islands, and from various islands in the Taumotu and Marquesas archipelagos.

The list of species, localities and number of specimens follows:

*Lepidodactylus lugubris* (Dumeril and Bibron). Society Islands: Morea, 2; Marquesas Islands: Nukuhiva, 2; Taumotu Islands: Takaroa, 4; Anaa, 13; Hau, 3; Niau Island, 26.

*Peropus mutilatus* (Wiegmann). Society Islands: Morea, 3; Marquesas Islands: Nukuhiva, 3; Taumotu Islands: Takaroa, 1; Nihiru, 1; Hau, 1.



*Gehyra oceanica* (Lesson). Society Islands: Morea, 8; Marquesas Islands: Nukuhiva, 3; Taumotu Islands: Takaroa, 4; Makemo, 1; Hiti, 3; Hau, 4.

*Leiopisma noctua* (Lesson). Society Islands: Morea, 5; Marquesas Islands: Nukuhiva, 2; Taumotu Islands: Takaroa, 14; Makemo, 4; Anaa, 7; Hau, 1; Niau, 1.

*Emoia cyanurum* (Lesson). Society Islands: Morea, 10; Marquesas Islands: Nukuhiva, 1; Huapu, 1; Taumotu Islands: Takaroa, 7; Nihiru, 6; Fakarawa, 5; Anaa, 9; Hau, 2; Niau, 1.

*Cryptoblepharus pocilopleurus* Weigmann. Society Islands: Morea, 2; Taumotu Islands: Takaroa, 3; Anaa, 7; Niau, 10.

KARL P. SCHMIDT,  
New York, N. Y.

#### A FOURTH SPECIMEN OF A RARE SNAKE FROM TEXAS

*Amphiardis inornatus* originally was described from two specimens collected at Dallas, Texas. These are in the Museum of Comparative Zoology.

Recently, Mr. Karl P. Schmidt recorded the finding of a third specimen (Copeia, 1919, No. 73, p. 72). This was secured in Oklahoma and is now in the collection of the American Museum of Natural History.

A fourth specimen of this rare snake has now been found in a collection of reptiles gathered by Chaplain Joseph C. Clemens, U. S. A., at San Antonio, Bexar County, Texas. It was collected May 6, 1911, and is No. 30980 in the collection of the California Academy of Sciences.

J. VAN DENBURGH,  
San Francisco, Calif.

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EDITED by J. T. NICHOLS, American Museum of Natural History.



